

ABSTRACT OF THE DISCLOSURE

5 An apparatus includes a memory, a functional unit configured to perform a block operation on one or more block operands to generate a block result, and a cache accumulator that includes multiple block storage locations. The cache accumulator is configured to receive a set of one or more instructions to perform a first accumulation operation. In response to receiving the first instruction in the set, the cache accumulator is configured to access an associativity list that includes an indication that a first set of the block storage locations are currently allocated to the first accumulation operation. In 10 response to the indication, the cache accumulator is configured to provide the first block operand to the functional unit from the first set of the block storage locations and to store the block result into the first set of block storage locations.